CLAIMS

1. A joint boot comprising a cylindrical large-diameter attachment part to be installed by external fitting to a mounting part of an outer casing, a small-diameter attachment part to be installed on a shaft, and a bellows part linking both, the large-diameter attachment part assuming on its outer peripheral surface a circular form in cross-section and being in its inner periphery area provided with a plurality of convex portions protruding radially inwardly so as to be distributed in the circumferential direction, the plural convex portions being constructed so that they can be externally fitted respectively in a plurality of recessed portions formed on the mounting part of the outer casing,
wherein the large-diameter attachment part is formed in a separate body from the bellows part, and a fit cylinder part externally fitting on the large-diameter attachment part is extended at one extremity of the bellows part;
each of the convex portions of the large-diameter attachment part comprises an inner wall portion radially inwardly jutting in a curved form and adapted to fit in each of the said recessed portions, an outer wall portion of an arc form constituting part of the outer peripheral surface of the large-diameter attachment part, a central strut wall connecting the inner wall portion and the outer wall portion in the circumferential middles of both and extending radially, and a pair of lateral strut walls linking the inner wall portion and the outer wall portion on both sides of the central strut wall, whereby four relief holes are provided on the convex portion so as to be juxtaposed in the circumferential direction.

2. A joint boot as set forth in claim 1, which is characterized in that the lateral strut walls slant in a manner such that as they extend outwards, they approach the central strut wall.

3. A joint boot as set forth in claim 1, which is characterized in that said relief holes include four first relief holes apertured on one edge face side of the large-diameter attachment part and juxtaposed in the circumferential direction, and four second relief holes apertured on the other edge face side and juxtaposed in the circumferential direction; there is provided a third strut wall supporting each of the inner wall portions by a partition wall dividing between the first relief holes and the second relief holes and extending in the circumferential direction.

4. The joint boot as set forth in claim 3, wherein a wall thickness of the third strut wall is set to be larger than a wall thickness of the first central strut wall comparting mutually the first relief holes and the lateral strut walls, a wall thickness of the second central strut wall comparting mutually the second relief holes, and a wall thickness of the inner wall portion.

5. A joint boot as set forth in claim 1 which is characterized in that the bellows part is formed of a resin material and the large-diameter attachment part is formed in a separate body from the bellows part and of a softer resin material than the bellows part or rubber material;

the large-diameter attachment part is provided, over the entirety of its inner peripheral surface, with a faying inner periphery portion smaller in diameter than the mounting part of the outer casing so that the large-diameter attachment part can be externally fitted and fayed on the mounting part; and

one end of the large-diameter attachment part opposite to the bellows part is provided, over the entirety of its inner peripheral surface, with an upset inner periphery portion assuming a straight hole of a larger diameter than the mounting part and guiding the mounting part when externally fitting the large-diameter attachment part on the mounting part, the upset inner periphery portion being terminated not to extend in the axial direction of the large-diameter attachment part up to an external fitting area by the fit cylinder part.

6. The joint boot as set forth in claim 1, wherein an outer periphery area of the large-diameter attachment part is formed with an upset part capable of axially receiving and stopping an edge surface of the fit cylinder part, and the upset part is set to be longer in axial length than a wall thickness of the fit cylinder part and a wall thickness of peripheral walls located between the circumferentially adjacent convex portions of the large-diameter attachment part.

7. The joint boot as set forth in claim 7, wherein one end of the large-diameter attachment part on the side of the bellows part is constructed in a tapered cylindrical form that is smaller in diameter toward the bellows part side.

8. A joint boot comprising a cylindrical large-diameter attachment part to be installed by external fitting to a mounting part of an outer casing, a small-diameter attachment part to be installed to a shaft, and a bellows part linking both, the large-diameter attachment part assuming, on its outer peripheral surface, a circular form in cross-section and being on its inner periphery area provided with a plurality of convex portions protruding radially inwardly so as to be distributed in the circumferential direction, a plurality of the convex portions being constructed so that they can be externally fitted respectively in a plurality of recessed portions formed on the mounting part of the outer casing,

wherein the bellows part is formed of resin material and the large-diameter attachment part is formed in a discrete body from the bellows part and of a softer resin material than the bellows part or rubber material;

a fit cylinder part externally fitting on the large-diameter attachment part is extended at one extremity of the bellows part;

the large-diameter attachment part is provided over the entirety of its inner periphery surface with a faying inner periphery portion smaller in diameter than the mounting part of the outer casing so that the large-diameter attachment part can be fayed and externally fitted to the mounting part; and the one end of the large-diameter attachment part opposite to the bellows part is provided over the entirety of the inner periphery surface with an upset inner periphery portion assuming a straight hole larger in diameter than the mounting part and guiding the mounting part when externally fitting

the large-diameter attachment part on the mounting part, the upset inner periphery portion being terminated not to extend in the axial direction of the large-diameter attachment part up to an external fitting area by the fit cylinder part.

9. The joint boot as set forth in claim 8, wherein an outer periphery area of the large-diameter attachment part is formed with an upset part capable of axially receiving an edge surface of the fit cylinder part, and the upset part is set to be longer in axial length than a wall thickness of the fit cylinder part and a wall thickness of peripheral walls located between the circumferentially adjacent convex portions of the large-diameter attachment part.

10. The joint boot as set forth in claim 9, wherein the one end of the large-diameter attachment part on the side of the bellows part is constructed in a tapered cylindrical form that is smaller in diameter toward the bellows part side.

11. A joint boot as set forth in claim 8, which is characterized in that on the convex portions there are formed a plurality of first relief holes opening on one edge side of the large-diameter attachment part and juxtaposed in the circumferential direction and a plurality of second relief holes opening on the other edge side and juxtaposed circumferentially;
and there is provided a third strut wall that supports the inner wall portion by a partition wall dividing between the first relief holes and the second relief holes and extends circumferentially.

12. The joint boot as set forth in claim 11, wherein a wall thickness of the third strut wall is set to be larger than a wall thickness of the first central strut wall comparting mutually the first relief holes and the lateral strut walls, a wall thickness of the second central strut wall comparting mutually the second relief holes, and a wall thickness of the inner wall portion.

13. The joint boot as set forth in claim 8, wherein a hardness of the large-diameter attachment part is set at 55 to 85 degrees according to JIS A hardness and a hardness of the bellows part, at 40 to 50 degrees according to JIS D hardness.